

Amendments to the Claims

Please amend claims 1, 20, 26, and add new claims 41-43 as indicated below.

All claims are listed below, with amended claims so marked. This listing of claims will replace all prior versions, and listings, of claims in the application:

1 1. (Currently Amended) A method for a proxy to transparently provide access
2 to resources of a resource manager, comprising:
3 receiving from the client a resource locator for retrieving a resource of a selected
4 resource manager of a set of the resource managers disposed within different
5 machines, wherein the resource locator comprises a network address of the resource
6 manager and the resource locator is at least partially obscured to hide the network
7 address;
8 ~~validating client authorization to access the resource;~~
9 de-obscuring the resource locator;
10 retrieving a first portion of the resource from the resource manager according to
11 the de-obscured resource locator, and a second portion of the resource from a second
12 selected resource manager of said set of resource managers according to the de-
13 obscured resource locator; and
14 providing the resource to the client such that it appears to have originated from
15 the proxy.

1 2. (Original) The method of claim 1, wherein the proxy comprises a front end
2 manager and a back end manager, the method further comprising:

3 receiving a first proxy header corresponding to the request, the first proxy header
4 identifying the client as the source of the request and the front end manager as the
5 source of the resource; and
6 preparing a second proxy header by rewriting the first proxy header so as to
7 substitute the back end manager for the client, and the resource manager for the front
8 end manager;
9 wherein retrieving the resource from the resource manager comprises the back
10 end manager providing the second proxy header to the resource manager.

1 3. (Original) The method of claim 1, further comprising:
2 receiving a first proxy header corresponding to the request, the first proxy header
3 identifying the client as the source of the request and the proxy as the source of the
4 resource; and
5 preparing a second proxy header by rewriting the first proxy header so as to
6 substitute the proxy for the client, and the resource manager for the proxy;
7 wherein retrieving the resource from the resource manager comprises providing
8 the second proxy header to the resource manager.

1 4. (Original) The method of claim 3, further comprising:
2 receiving a third proxy header from the resource manager, the third proxy header
3 identifying the resource manager as the source of the resource, and the proxy as the
4 recipient of the resource; and

5 preparing a fourth proxy header by rewriting the third proxy header so as to
6 substitute the proxy as the source of the resource, and the client as the recipient of the
7 resource;

8 wherein providing the resource to the client comprises providing the fourth proxy
9 header to the client.

1 5. (Previously Presented) The method of claim 3, wherein the resource is
2 formatted according to a tag based language.

1 6. (Previously Presented) The method of claim 5, wherein the tag based
2 language is a selected one of: the HyperText Markup Language (HTML), and the
3 eXtensible Markup Language (XML).

1 7. (Original) The method of claim 3, wherein the first proxy header comprises
2 a content type identifier identifying a desired format for the resource, and wherein the
3 resource manager stores the resource in a second format different from the desired
4 format, the method further comprising:

5 converting the resource from the second format to the first format.

1 8. (Original) The method of claim 1, further comprising:
2 receiving a content type identifier from the client identifying a desired format in
3 which to provide the resource to the client; and
4 converting the resource from a different format utilized by the resource manager
5 into the desired format.

1 9. (Original) The method of claim 1, wherein the network comprises multiple
2 resource managers providing access to the resource, the method further comprising:
3 retrieving portions of the resource from selected ones of the multiple resource
4 managers.

1 10. (Original) The method of claim 9, wherein the portions are retrieved in
2 parallel from the selected ones of the multiple resource managers.

1 11. (Original) The method of claim 10, further comprising:
2 determining loads for the multiple resource managers; and
3 selecting among the multiple resource managers according to the loads.

1 12. (Original) The method of claim 11, wherein the portions are non-
2 overlapping portions of the resource.

1 13. (Original) The method of claim 1, further comprising:
2 the resource locator comprising a Uniform Resource Locator (URL); and
3 inspecting the URL for a path component indicating the URL comprises the at
4 least partially obscured portion.

1 14. (Original) The method of claim 1, wherein de-obscuring the resource
2 locator comprises providing at least the obscured portion of the resource locator to a
3 location manager, and receiving a de-obscured identifier responsive thereto.

1 15. (Original) The method of claim 14, wherein the location manager performs
2 the validating client authorization to access the resource.

1 16. (Original) The method of claim 1, wherein validating client authorization to
2 access the resource comprises providing the at least partially obscured portion of the
3 resource locator, and an identity identifier for the client to an authorization manager.

1 17. (Original) The method of claim 1, wherein validating client authorization to
2 access the resource comprises:
3 hash-encoding an identity value associated with the client; and
4 providing the hash-encoded identity value and at least a portion of the resource
5 locator to an authorization manager configured to look up the hash-encoded identity
6 value and the at least a portion of the resource locator in an access control table.

1 18. (Original) The method of claim 1, wherein the client communicates with
2 the proxy by way of an Internet browser.

1 19. (Original) The method of claim 1, wherein the proxy comprises a front end
2 manager and a back end manager, wherein the client only communicates with the front
3 end manager for obtaining the resource, and wherein the back end manager obtains the
4 resource from the resource manager.

1 20. (Currently Amended) A system, comprising:
2 a network communicatively coupling a client, a resource manager providing
3 access to its resources, and a proxy comprising a front end manager and a back end
4 manager, wherein the proxy is configured to perform a method comprising:

5 receiving from the client a resource locator for retrieving a resource of a selected
6 resource manager of a set of the resource managers disposed within different
7 machines, wherein the resource locator comprises a network address of the resource
8 manager and the resource locator is at least partially obscured to hide the network
9 address;

10 validating client authorization to access the resource;

11 de-obscuring the resource locator;

12 retrieving a first portion of the resource from the resource manager according to
13 the de-obscured resource locator, and a second portion of the resource from a second
14 selected resource manager of said set of resource managers according to the de-
15 obscured resource locator; and

16 providing the resource to the client such that it appears to have originated from
17 the proxy.

1 21. (Original) The system of claim 20, wherein the proxy is further configured
2 to perform:
3 receiving a first proxy header corresponding to the request, the first proxy header
4 identifying the client as the source of the request and the proxy as the source of the
5 resource; and
6 preparing a second proxy header by rewriting the first proxy header so as to
7 substitute the proxy for the client, and the resource manager for the proxy;
8 wherein retrieving the resource from the resource manager comprises providing
9 the second proxy header to the resource manager.

1 22. (Original) The system of claim 21, wherein the proxy is further configured
2 to perform:

3 receiving a third proxy header from the resource manager, the third proxy header
4 identifying the resource manager as the source of the resource, and the proxy as the
5 recipient of the resource; and

6 preparing a fourth proxy header by rewriting the third proxy header so as to
7 substitute the proxy as the source of the resource, and the client as the recipient of the
8 resource;

9 wherein providing the resource to the client comprises providing the fourth proxy
10 header to the client.

1 23. (Original) The system of claim 20, wherein the resource locator comprises
2 a Uniform Resource Locator (URL), and wherein the proxy is further configured to
3 perform:

4 inspecting the URL for a path component indicating the URL comprises the at
5 least partially obscured portion.

1 24. (Original) The system of claim 20, wherein validating client authorization to
2 access the resource comprises:

3 hash-encoding an identity value associated with the client; and
4 providing the hash-encoded identity value and at least a portion of the resource
5 locator to an authorization manager configured to look up the hash-encoded identity
6 value and the at least a portion of the resource locator in an access control table.

1 25. (Original) The system of claim 20, wherein the client communicates with
2 the proxy by way of an Internet browser.

1 26. (Currently Amended) A machine accessible medium having instructions
2 encoded thereon, which when executed by at least one processor, are capable of
3 directing the at least one processor to perform:
4 receiving from a client a resource locator for retrieving a resource of a resource
5 manager, wherein the resource locator comprises a network address of a selected
6 resource manager of a set of the resource managers disposed within different machines
7 and the resource locator is at least partially obscured to hide the network address;
8 ~~validating client authorization to access the resource;~~
9 de-obscuring the resource locator;
10 retrieving a first portion of the resource from the resource manager according to
11 the de-obscured resource locator, and a second portion of the resource from a second
12 selected resource manager of said set of resource managers according to the de-
13 obscured resource locator; and
14 providing the resource to the client such that it appears to have originated from
15 the proxy.

1 27. (Original) The medium of claim 26, wherein the proxy comprises a front
2 end manager and a back end manager, and wherein the instructions comprise further
3 instructions capable of directing the at least one processor to perform:

4 receiving a first proxy header corresponding to the request, the first proxy header
5 identifying the client as the source of the request and the front end manager as the
6 source of the resource; and

7 preparing a second proxy header by rewriting the first proxy header so as to
8 substitute the back end manager for the client, and the resource manager for the front
9 end manager;

10 wherein retrieving the resource from the resource manager comprises the back
11 end manager providing the second proxy header to the resource manager.

1 28. (Original) The medium of claim 26, wherein the instructions comprise
2 further instructions capable of directing the at least one processor to perform:
3 receiving a first proxy header corresponding to the request, the first proxy header
4 identifying the client as the source of the request and the proxy as the source of the
5 resource; and
6 preparing a second proxy header by rewriting the first proxy header so as to
7 substitute the proxy for the client, and the resource manager for the proxy;
8 wherein retrieving the resource from the resource manager comprises providing
9 the second proxy header to the resource manager.

1 29. (Original) The medium of claim 28, wherein the instructions comprise
2 further instructions capable of directing the at least one processor to perform:
3 receiving a third proxy header from the resource manager, the third proxy header
4 identifying the resource manager as the source of the resource, and the proxy as the
5 recipient of the resource;

6 preparing a fourth proxy header by rewriting the third proxy header so as to
7 substitute the proxy as the source of the resource, and the client as the recipient of the
8 resource; and
9 wherein providing the resource to the client comprises providing the fourth proxy
10 header to the client.

1 30. (Previously Presented) The medium of claim 28, wherein the resource is
2 formatted according to a tag based language.

1 31. (Previously Presented) The medium of claim 30, wherein the tag based
2 language is a selected one of: the HyperText Markup Language (HTML), and the
3 eXtensible Markup Language (XML).

1 32. (Original) The medium of claim 28, wherein the first proxy header
2 comprises a content type identifier identifying a desired format for the resource, and
3 wherein the resource manager stores the resource in a second format different from the
4 desired format, wherein the instructions comprise further instructions capable of
5 directing the at least one processor to perform:
6 converting the resource from the second format to the first format.

1 33. (Original) The medium of claim 26, wherein the instructions comprise
2 further instructions capable of directing the at least one processor to perform:
3 receiving a content type identifier from the client identifying a desired format in
4 which to provide the resource to the client; and

5 converting the resource from a different format utilized by the resource manager
6 into the desired format.

1 34. (Original) The medium of claim 26, wherein the network comprises
2 multiple resource managers providing access to the resource, and wherein the
3 instructions comprise further instructions capable of directing the at least one processor
4 to perform:

5 retrieving portions of the resource from selected ones of the multiple resource
6 managers.

1 35. (Original) The medium of claim 34, wherein the portions are retrieved in
2 parallel from the selected ones of the multiple resource managers.

1 36. (Original) The medium of claim 35, wherein the instructions comprise
2 further instructions capable of directing the at least one processor to perform:
3 determining loads for the multiple resource managers; and
4 selecting among the multiple resource managers according to the loads.

1 37. (Original) The medium of claim 36, wherein the portions are non-
2 overlapping portions of the resource.

1 38. (Original) The medium of claim 26, wherein the instructions comprise
2 further instructions capable of directing the at least one processor to perform:
3 the resource locator comprising a Uniform Resource Locator (URL); and

4 inspecting the URL for a path component indicating the URL comprises the at
5 least partially obscured portion.

1 39. (Original) The medium of claim 26, wherein the instructions for validating
2 client authorization to access the resource comprise instructions capable of directing the
3 at least one processor to perform:
4 hash-encoding an identity value associated with the client; and
5 providing the hash-encoded identity value and at least a portion of the resource
6 locator to an authorization manager configured to look up the hash-encoded identity
7 value and the at least a portion of the resource locator in an access control table.

1 40. (Previously Presented) The medium of claim 26, wherein the client
2 communicates with the proxy by way of an Internet browser.

1 41. (New) The method of claim 1, wherein said providing the resource to the
2 client comprises transcoding at least a portion of said retrieved resource received in a
3 first format into a different second format.

1 42. (New) A method for a proxy to transparently provide access to resources
2 of a resource manager, comprising:
3 receiving from the client a resource locator for retrieving a resource from selected
4 ones of resource managers disposed within different machines, wherein the resource
5 locator comprises a network address identifying at least one of the resource managers,
6 and the resource locator being at least partially obscured to hide the network address;

7 validating client authorization to have the resource locator de-obsured, and if so,
8 de-obsuring the resource locator;
9 retrieving the resource from said selected ones of said resource managers
10 according to the de-obsured resource locator, said resource having at least a portion
11 encoded in a first format.

1 43. (New) The method of claim 41, further comprising:
2 transcoding at least the portion in the first format into a different second format.